

Product Name: ZX230CPAR USB type C Plug to USB Type A receptacle electrical test breakout adapter

Product Description: USB Type C Plug to USB Type A Receptacle test board - breakout adapter - converter. ZX230CPAR is designed for general purpose electrical signal analysis, test, measurement as well as compatibility & debug applications. ZX230CPAR is designed for SuperSpeed Gen1 (2.5GHz) SuperSpeed Plus Gen2 (5GHz) and future 20Gbps (**10GHz**) bandwidth - electrical performance. Please refer to page 2 for the s-parameter detained information.

ZX230CPAR is shipped with cable assembly, ZXSJ1173-230C, enabling full access to VBUS, GND, CC1, CC2, SBU1 and SBU2 signals. The cable assembly includes pin socket, mating with any standard pin header (0.025" / 0.63mm SQ pin header).

RX2-P/N as well as TX2-P/N signal pairs are available on the SMA connector.

ZX230CPAR is designed using 4 layers PCB where the inner layers are GND planes. The GND test point is connected to the inner layer GND planes as well as top/bottom fill.

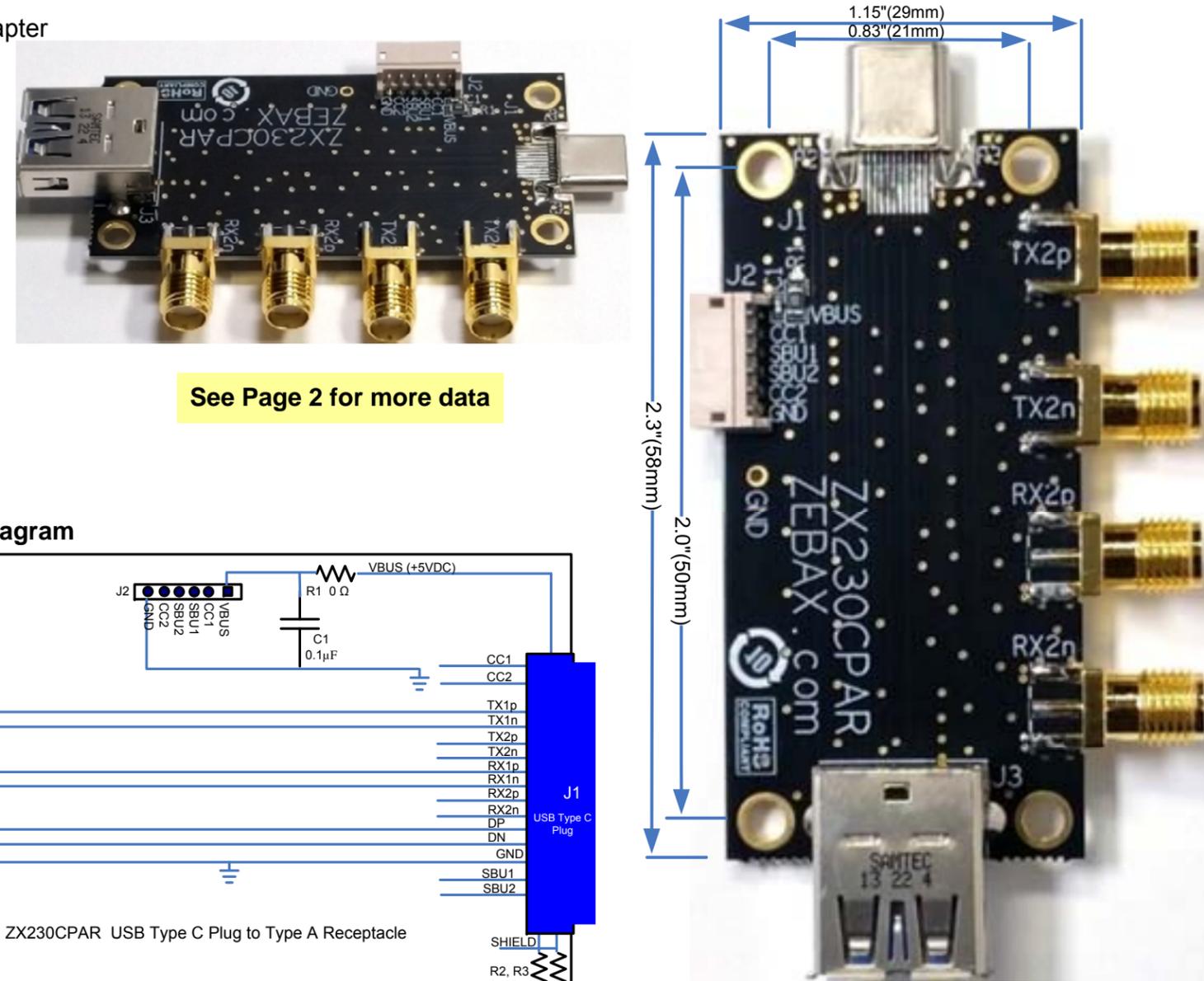
Application: USB electrical signal analysis & measurements. Compatibility test and debug.

Supported bandwidth: Supporting SuperSpeed Gen1 (2.5GHz) SuperSpeed Gen2 (5GHz) and future 20Gbps (10GHz) Nyquist frequencies, bandwidth.

Mates with : **USB Type C Receptacle**
USB Type A Plug
SMA connectors mates with any standard SMA cable assembly.
Wire assembly mates with any 0.025" (0.63mm) SQ post header length 0.23" (5.83mm)

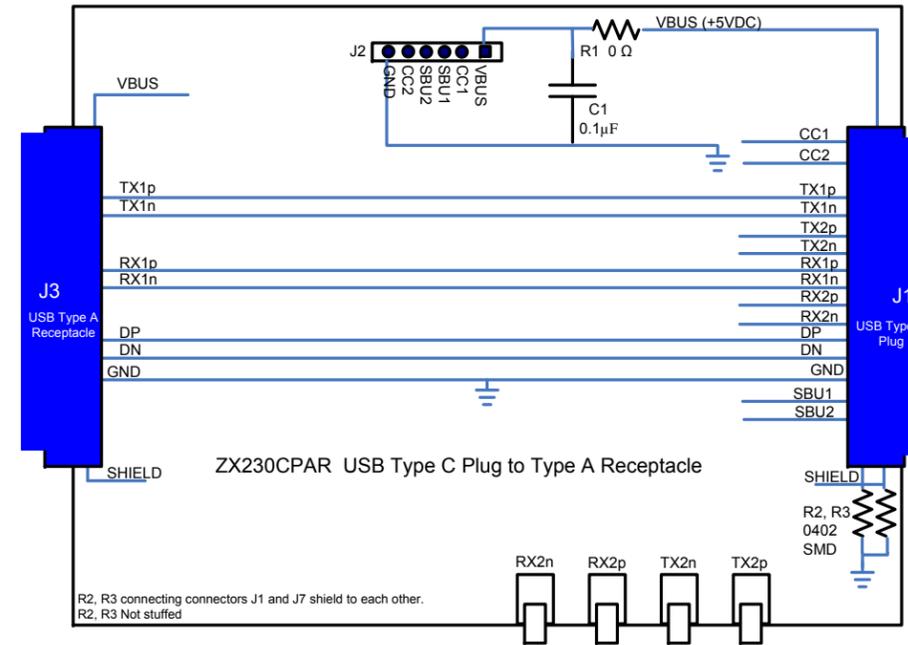


ZXJS1173-USB wire assembly accessing VBUS, GND, CC1, CC2, SBU1 and SBU2



See Page 2 for more data

Circuit Diagram



R2, R3 connecting connectors J1 and J7 shield to each other. R2, R3 Not stuffed

Ordering INFO:
Part Number ZX230CPAR

Package includes:

Item	Part number	Quantity	Description
1	ZX230CPAR	1	USB Type C Plug to USB Type A Receptacle electrical test breakout adapter.
2	ZXJS1173-230C	1	Wire assembly for accessing J2 signals, Note 1
3	ZX230CP	0	USB Type C TPA-P electrical test breakout module – Plug.
4	ZX230CR	0	USB Type C TPA-R electrical test breakout module - Receptacle.
5	ZX00WT-09NM	0	SMA Wrench Torque 5/16" (8mm)

Notes: 1- Supplied extension wire assembly enables to interface test equipment or 3rd party modules.



Note
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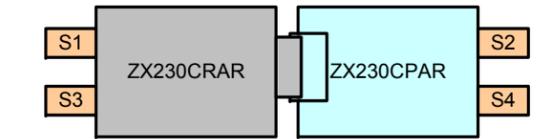
SPECIFIED DIMENSIONS ARE INCHES (MM). ROHS COMPLIANT	ASSEMBLY DRAWING	
	ITEM: ZX230CPAR	
DESCRIPTION: USB Type C Plug to USB type A Receptacle electrical test breakout adapter - converter		
CHECKED: M. MARINA	DRAWN: SLAVIK	REVISION: 1.0
		SHEET: 1 OF 2

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Product Name: ZX230CPAR USB type C Plug to USB Type A Socket electrical test breakout adapter Cont's

S-Parameter, Insertion loss: The following insertion loss measurements were obtained using Agilent NA with the following test case:

- 1- ZX230CPAR mating with ZX230CRAR at USB type C connector.
- 2- NT interfacing with the supplied SMA connectors on both ZX230CPAR and ZX230CRAR modules.



Test network : ZX230CRAR (Type C Receptacle) to ZX230CPAR (Type C Plug)

S12 : TX2+ RX2+
S34: TX2- RX2-

Signal Pairs	Insertion Loss at USB Gen1 Gne2 Nyquist frequencies (dB)			
	0.626GHz	1.25GHz	2.5GHz (Gen1)	5.0GHz (Gen2)
RX2-P/N	-1.00	-0.50	-1.44	-5.48
RX2-P/N	-1.12	-0.54	-3.45	-4.15

All values are dB

S-Parameter files: [ZX230CXAR-S-Parameter](#) – It is .7z file. It consists of .s2p files, only.

Pinouts: USB Type C Plug to USB Type A Plug and J2 signal assignments listed below

ZX230CPAR - USB Type C Plug to USB Type A receptacle

Signal	USB-A		USB Type C		USB-A		Signal
	Pin#	Signal	Top	Bottom	Pin#	Signal	
J2.6 GND	4,7	GND	A1	B12	4,7	GND	J2.6 GND
TX1p	9	TXp	A2	B11	6	RXp	RX1p
TX1n	8	TXn	A3	B10	5	RXn	RX1n
J2.6 VBUS	1	VBUS	A4	B9	1	VBUS	J2.6 VBUS
J2.2 CC1			A5	B8			J2.4 SBU2
DP	3	DP	A6				
DN	2	DN	A7				
J2.3 SBU1			A8	B5			J2.5 CC2-VCONN
J2.6 VBUS	1	VBUS	A9	B4	1	VBUS	J2.6 VBUS
RX2n	SMA		A10	B3	SMA		TX2n
RX2p	SMA		A11	B2	SMA		TX2p
J2.6 GND	4,7	GND	A12	B1	4,7	GND	J2.6 GND

J2	
Pin	Function
1	VBUS
2	CC1
3	SBU1
4	SBU2
5	CC2-VCONN
6	GND

J2.x signals are accessible on J2 connector
SMA: Signal available on SMA connector

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